March 3, 2006

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND THE PUBLIC

As required by state and federal rules for determining whether an Environmental Impact Statement is necessary, an environmental review has been performed on the proposed action below:

| | |
|---|---|
| **Project:** | **Lewis & Clark County Fairgrounds/Dunbar Area Wastewater Infrastructure Improvements** |
| Location: | Lewis & Clark County, Montana |
| STAG Project Number: | XP-98860801 |
| Total Cost: | $1,115,614 |
| STAG Grant: | $576,047 |
| TSEP Grant: | $288,746 |
| Mill Levy: | $133,188 |
| L&C Co. Loan: | $62,400 |
| SRF Loan: | $41,000 |
| Private Funds: | $14,233 |

PROJECT ABSTRACT:

The Lewis and Clark County Commissioners, through a 2004 Preliminary Engineering Report (PER) prepared by Stahly Engineering and Associates, have investigated the need for centralized public water supply and wastewater collection facilities to serve the Lewis and Clark Fairgrounds/Dunbar Area. This area included the fairgrounds, the Woodlawn Park community, and the Labor Union Associated General Contractors (AGC) Training Facility. This area was chosen for study following a report developed by the Lewis and Clark County Environmental Health Division that identified priority projects within Lewis and Clark County. A number of problems have been defined in this area including failing septic systems, inadequate fire flows, and unacceptable nitrate levels in the domestic water system.

The type of wastewater infrastructure within the study area varies; the core area of the fairgrounds is connected to the City of Helena for wastewater treatment. The Woodlawn Park area and the AGC area rely on individual "on-site" wastewater systems (septic tanks and drainfields).

The recommended wastewater alternatives include the following improvements:

- Construct the *Fort Harrison Outfall Connection* that involves constructing a sewer line north from the Fairgrounds to the Fort Harrison outfall. Also, recommended were the *West Extension*, *Campground* and *Rodeo Ground* service lines.

- Installation of City sewer mains within the Woodlawn Park Addition.
- Connect the AGC Training Facility to the City sewer mains via the Fairgrounds.

The recommended wastewater collection and treatment system improvements will enable wastewater to be adequately treated at the City of Helena wastewater treatment plant prior to discharging to the Missouri River. The project will be funded by a combination of federal, state, and local grants and loans.

Environmentally sensitive characteristics such as wetlands, floodplains, threatened or endangered species, and historical sites are not expected to be adversely impacted as a result of the proposed project. No significant long-term environmental impacts were identified. Public participation during the planning process demonstrated support for the selected alternative. An environmental assessment (EA), which describes the project and analyzes the impacts in more detail, is attached to this Finding of No Significant Impact. This EA indicates that there will be no significant environmental impacts from the project. Based on the EA, and the supporting PER, a preliminary decision not to prepare an Environmental Impact Statement (EIS) had been made. Public review of the EA is available at the following locations:

Department of Environmental Quality
State Revolving Fund Loan Program
1520 East Sixth Avenue
Helena, MT 59620-0901

City/County Building, Room 340
Lewis & Clark County Administrative Dept.
316 North Park,
Helena, MT 59624

Comments regarding this proposed project or its associated EA must be submitted to the Montana Department of Environmental Quality (MDEQ) at the following address:

Montana DEQ
Technical & Financial Assistance Bureau
State Revolving Fund Loan Program
P.O. Box 200901
Helena, MT 59620-0901

The Montana DEQ will review all comments received. After evaluating the comments, the Agencies will make a final decision whether or not to prepare an EIS or recommend project changes. No administrative action will be taken on the project for at least 30 calendar days after release of the Finding of No Significant Impact. This public comment and review is part of both the National Environmental Policy Act (NEPA) and the Montana Environmental Policy Act (MEPA) requirements.

Sincerely yours,

_____

Todd Teegarden, Bureau Chief
Technical & Financial Assistance Bureau
Planning Prevention & Assistance Division
Montana Department of Environmental Quality

LEWIS AND CLARK FAIRGROUNDS / DUNBAR AREA
WASTEWATER INFRASTRUCTURE IMPROVEMENTS

ENVIRONMENTAL ASSESSMENT

## I. COVER SHEET

### A. PROJECT IDENTIFICATION

| | |
|---|---|
| Applicant: | Lewis and Clark County Commissioners |
| Address: | 316 North Park Avenue<br>Helena, MT 59601 |
| Project Number: | XP-98860801 |

### B. CONTACT PERSON

| | |
|---|---|
| Name: | Ron Alles, County Manager<br>Lewis and Clark County Commissioners |
| Address: | 316 North Park Avenue<br>Helena, MT 59601 |
| Telephone: | (406) 447-8311 |

### C. ABSTRACT

The Lewis and Clark County Commissioners, through a 2004 Preliminary Engineering Report (PER) prepared by Stahly Engineering and Associates, have investigated the need for centralized public water supply and wastewater collection facilities to serve the Lewis and Clark Fairgrounds / Dunbar area. This area included the fairgrounds, the Woodlawn Park community, and the Laborer's Associated General Contractors (AGC) Training Facility. This area was chosen for study following a report developed by the Lewis and Clark County Environmental Health Division that identified priority projects within Lewis and Clark County. A number of problems have been defined in this area including failing septic systems, inadequate fire flows, and unacceptable nitrate levels in the domestic water system. In addition, the existing fairgrounds sewer lift station requires extensive maintenance efforts, pumps to a main that is over 90% of capacity, and has served its useful life.

The type of wastewater and water infrastructure within the study area varies. The core area of the fairgrounds is connected to the City of Helena for both water supply and wastewater treatment. The fairgrounds also have additional wells used for irrigation needs. The Woodlawn Park area and the AGC area rely on individual water supply wells and individual "on-site" wastewater systems (septic tanks and drainfields) to meet their water infrastructure needs.

The recommended alternative from the preliminary engineering report includes the following improvements:

Water

- Expand the City water system at the fairgrounds by constructing the *Green Meadow Loop* and the *Campground Loop*.

- Installation of water mains within the Woodlawn Park Addition streets and along Custer Avenue and Green Meadow Drive including the *Fairground Connection*.
- Connect the AGC Training Facility to the existing City water main that services the Fairgrounds.

Wastewater

- Construct the *Fort Harrison Outfall Connection* that involves constructing a connection line north from the Fairgrounds to the Fort Harrison outfall. Also, recommended were the *West Extension*, *Campground* and *Rodeo Ground* service lines.
- Installation of sewer mains within the Woodlawn Park Addition streets and a *Fairgrounds Connection*.
- Connect the AGC Training Facility to the City of Helena sewer mains via *Horseshoe Bend Road* to the *West Extension* built with the Fairgrounds wastewater project.

The recommended wastewater collection and treatment system improvements will enable wastewater to be adequately treated at the city's wastewater treatment plant prior to discharging to the Missouri River. The new water distribution system will ensure that drinking water meeting state and federal regulations is provided to all homes and businesses in the district. The PER also recommended that the work be done in phases to allow for the most efficient use of funding sources. The initial proposed work will include only the wastewater recommendations identified above. The recommendations for water projects will be done in a future phase. With this in mind, **the following Environmental Assessment will address only the currently scheduled wastewater projects with construction expected in 2006.**

The project will be funded by a combination of state and federal grants and a State Revolving Fund loan. Environmentally sensitive characteristics such as wetlands, floodplains and threatened or endangered species are not expected to be adversely impacted as a consequence of the proposed project. No significant long-term environmental impacts were identified.

Under Montana law (75-6-112, MCA), no person, including a municipality or county, may construct, extend, or use a public sewage system until the DEQ has reviewed and approved the plans and specifications for the project. Under the Montana Water Pollution Control State Revolving Fund Act, the DEQ may loan money to municipalities or counties for construction of public sewage systems.

D. COMMENT PERIOD

Thirty (30) calendar days.

## II. PURPOSE AND NEED FOR ACTION

Public health issues regarding water quality are the driving factors in choosing the action alternatives for the Woodlawn Park Addition and the AGC Training Facility. Another factor is

the inability of property owners to replace failing septic systems due to limited space for replacement. This issue limits the amount of growth potential in the Woodlawn and AGC area. Likewise, the Fairgrounds benefits from action alternatives because those alternatives improve the wastewater collection system and allow the facility to expand the services they can provide to the community.

Nitrate levels have been a source of concern within the study area. Water samples taken from wells within the study area indicate that nitrates exceed the threshold of concern, 5 mg/l, set by the Montana Department of Environmental Quality (MDEQ) in many of the wells over a range of years. Septic systems installed prior to the beginning of the permitting program in 1973 could be the source. The state has required the use of a nitrate filter on the public water system at the Green Meadow Market. This appears to have helped with the problem and the State has gone from requiring quarterly to requiring annual water sampling (Rule 2002).

Nitrate samples collected from Fairgrounds wells in May 1997, November 1997 and June 1998 averaged 6 mg/l. Data taken from nine wells in the Woodlawn Park Addition in May 1989 (Briar and Madison 1992) show dissolved nitrate levels of 2.8 to 13 mg/l. Lewis and Clark County (2002) place the nitrate concentration in groundwater in the area at 3.04 to 9.93 mg/l. The AGC Facility has abandoned one of two drainfields. The system failed due to high water and there is no economical alternative for "on-site" replacement.

Proper wastewater collection and treatment are important to the water quality of the area as well as public health and safety. Without these, water quality and public health and safety will continue to be at risk.

## III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

### A. LEWIS AND CLARK COUNTY FAIRGROUNDS ALTERNATIVES

Three alternatives for addressing the Fairgrounds wastewater system needs were addressed as follows:

1. No action (Existing Lift Station)
2. Fort Harrison Outfall Connection – Alternative 1 (**Proposed Action**)
    a. West Extension
    b. Campground Service Line
    c. Rodeo Grounds Service Line
3. Replace the Existing Lift Station – Alternative 2

1. NO ACTION – Under the No Action Alternative, the Fairgrounds would continue to be serviced by the lift station in its present condition. Expansion of use at the Fairgrounds, as well as development of sewer mains within the Woodlawn Park Addition and the AGC Facility, would be limited.

2. FORT HARRISON OUTFALL CONNECTION (ALTERNATIVE 1) – **This is the proposed action** and would involve abandoning the existing lift station and constructing a connection line north to the Fort Harrison outfall. The new main would fall within the eastern Fairgrounds property boundary for most of its length (Figure IIIS-2). This alternative would provide the ability to provide on-site improvements and expansion of services within the Fairgrounds, including:

a. West Extension – would be constructed west from the Administration Building with the purpose of servicing the Arena Building.
b. Campground Service Line – would be constructed to serve the campground. The main would begin on the south edge of the campground, traverse the southern edge of the campground and connect to the proposed Fort Harrison Outfall Connection.
c. Rodeo Grounds Service Line – would be constructed north from the Rodeo Grounds and connect to the Campground Service Line.

3. REPLACE EXISTING LIFT STATION (ALTERNATIVE 2) – Would require that the existing lift station be rebuilt or replaced. Fairground effluent would continue to be pumped to the City outfall main located on Custer Avenue. The lift station would possibly receive effluent from the Woodlawn Park Addition and AGC Facility as well.

B. WOODLAWN PARK ADDITION ALTERNATIVES

Two alternatives for addressing the wastewater needs of the Woodlawn Park Addition were addressed as follows:

1. No action
2. Fairgrounds Connection (**Proposed Action**)

1. NO ACTION – This alternative would result in continued use of on-site septic wastewater treatment systems. Septic system failures could be expected to continue and nitrate levels could be expected to be a problem in wells. In addition, replacement areas would be difficult, if not impossible for some parcels.
2. FAIRGROUNDS CONNECTION - This alternative would involve placing sewer mains within the streets and alleyways of the Woodlawn Park Addition with an outfall to the existing lift station location. The effluent would then be routed to either the Fort Harrison main or the Custer Avenue main. **This is the proposed action.**

C. AGC FACILITY ALTERNATIVES

Four alternatives for addressing the AGC Facility wastewater system needs were addressed as follows:

1. No action
2. Custer Avenue Connection – Alternative 1
3. Maintenance Site Connection – Alternative 2
4. Horseshoe Bend Connection – Alternative 3 (**Proposed Action**)

1. NO ACTION – The AGC Facility would continue to use an on-site septic system to treat their wastes. Student capacity and possible curriculum development would continue to be limited. The threat of drainfield failure would continue.

2. CUSTER AVENUE CONNECTION (ALTERNATIVE 1) – would require the construction of a sewer main along Custer Avenue, connecting the AGC Facility to the Woodlawn Park Addition sewer main. This alternative assumes the construction of wastewater mains within the Woodlawn Park Addition. The alternative would provide

future access capabilities to the MDT Maintenance Site, Ryan Fields and any adjoining development.

3. MAINTENANCE SITE CONNECTION (ALTERNATIVE 2) – would require the construction of a sewer outfall service line within or adjacent to Custer Avenue between the AGC Facility and the MDT Maintenance Site. The line would then run north and northeast, along the perimeter of the MDR Maintenance site, connecting to the Fairground infrastructure.

4. HORSESHOE BEND CONNECTION (ALTERNATIVE 3) – would result in the sewer service line being placed within or parallel to Horseshoe Bend Road, before extending eastward and connecting to the existing Fairgrounds infrastructure. This alternative would require the *West Extension* of the Fairgrounds wastewater infrastructure. **This is the proposed action**.

D. COST COMPARISON –PRESENT WORTH ANALYSIS

The present worth analysis is a method of comparing alternatives in present day dollars and may be used to determine the most cost-effective alternative. Capital cost is first adjusted by subtracting the present worth of the salvage value at the end of 20 years. The present worth value of the annual operating and maintenance costs is calculated assuming a 6.0% interest rate over the 20-year planning period. The present worth of the annual operation and maintenance costs is then added to the adjusted capital cost to provide the total present worth cost of each alternative. These values are compared to determine the most cost-effective alternative.

1. Table 1 provides a summary of the present worth analysis of the Fairgrounds wastewater system alternatives.

**Table 1. Present Worth Analysis - Fairground Wastewater System Alternatives**

| | **Wastewater System Alternatives** | | | |
|---|---|---|---|---|
| | **No Action** | **On-Site** Improvements a. W. Extension b. Campground c. Rodeo Ground | **Alt. 1** Fort Harrison Outfall Connection | **Alt. 2** Rebuild/Replace Lift Station |
| Capital Cost (2003 | - | $295,024 | $157,290 | $294,480 |
| Annual O&M Costs | $1,818 | $2,610 | $2,610 | $2,797 |
| Present Worth of Annual O&M Costs (6.0%) | $20,852 | $29,937 | $29,937 | $32,081 |
| Total Present Worth Cost | $20,852 | **$324,961** | **$187,227** | $281,562 |

Notes: Interest Rate = 6%, Term = 20 years, A/P = 0.0872, P/A = 11.470

Based on the present worth analysis for the wastewater system alternatives, Alternative 1 is the least costly. The Fort Harrison Outfall Connection is proposed along with the On-Site Improvements.

2. Table 2 provides a summary of the present worth analysis of the Woodlawn Park Subdivision Addition wastewater system alternatives.

**Table 2. Present Worth Analysis – Woodlawn Park Addition Wastewater System Alternatives**

| | **Woodlawn Park Addition Wastewater System Alternatives** | |
|---|---|---|
| | **No Action** | **Alt. 1** Wastewater Collection Line w/City Hookup |
| Capital Cost (2003 | - | $527,451 |
| Annual O&M Costs | $14,404 | $10,758 |
| Present Worth of Annual O&M Costs (6.0%) | $165,214 | $123,392 |
| Total Present Worth Cost | $165,214 | **$650,843** |

Notes: Interest Rate = 6%, Term = 20 years, A/P = 0.0872, P/A = 11.470

Based on the present worth analysis for the wastewater system alternatives, and including public health and regulatory compliance issues, Alternative 1 is recommended alternative. The Woodlawn Park Addition sewer system project is proposed.

3. Table 3 provides a summary of the present worth analysis of the AGC Training Facility wastewater system alternatives.

**Table 3. Present Worth Analysis – AGC Training Facility Wastewater System Alternatives**

| | **AGC Training Facility Wastewater System Alternatives** | | | |
|---|---|---|---|---|
| | **No Action** | **Alt. 1** Custer Avenue | **Alt. 2** MDT Maintenance Site Route | **Alt. 3** Horseshoe Bend Road |
| Capital Cost (2003) | - | $195,796 | $66,015 | $51,656 |
| Annual O&M Costs | $277 | $621 | $621 | $621 |
| Present Worth of Annual O&M Costs (6.0%) | $3,177 | $7,119 | $7,119 | $7,119 |
| Total Present Worth Cost | $3,177 | $202,914 | $73,134 | **$58,775** |

Notes: Interest Rate = 6%, Term = 20 years, A/P = 0.0872, P/A = 11.470

Based on the present worth analysis for the wastewater system alternatives, and considering public health issues, Alternative 3 is recommended alternative. The Horse Shoe Bend Road Alternative is proposed.

D. TOTAL ESTIMATED COSTS

The total estimated present worth cost of the proposed wastewater projects, based on selection of the Fairgrounds On-Site Improvements and Fort Harrison Outfall Connection, Woodlawn Park Addition sewer project, and AGC Facility Horseshoe Road project, is $1,221,806 (PER). Estimated cost of the Phase I project, including administrative, financial, land acquisition, annexation, engineering and construction costs, is $1,115,614 (Application). Lewis and Clark County will fund this project using federal, state and local funds. Detailed project funding information can be seen in Table 4 below:

**Table 4. Proposed Funding Sources - Phase 1 Wastewater Improvements**

| Source | Type of Funds | Amount | Status of Commitment | Loan Rates and Terms |
|---|---|---|---|---|
| SRF | Loan | $41,000 | Approved | 2.75% for 20 years |
| TSEP | Grant | $288,746 | Grant Awarded by Legislature 2005 | |
| STAG | Grant | $576,047 | County Commissioners committed April 2004 | |
| Lewis & Clark County Loan | Loan | $62,400 | Discussed with Administrative office | 4.5% for 20 years |
| Mill Levy Election | Tax Revenue | $133,188 | Mill levy election passed june2004 | |
| Private Funds | AGC Laborer's Training Funds | $14,233 | Discussed with AGC Executive Director | |
| TOTAL FUNDS | | $1,115,614 | | |

Note: SRF – State Revolving Fund
TSEP – Treasure State Endowment Program
STAG – State and Tribal Assistance Grant

The Phase I project will result in an average monthly combined water and sewer rate of approximately $27.94, based on 52 equivalent dwelling units (40 residential EDU's and 12 non-residential EDU's).

## IV. AFFECTED ENVIRONMENT

A. PLANNING AREA

The planning area encompasses The Lewis and Clark Fairgrounds (Fairgrounds), the Woodlawn Park Addition (Woodlawn) east of the fairgrounds, and the laborer's AGC Apprenticeship Training Facility (AGC Facility) property to the west (see Aerial Map of Project). The contiguous study areas are located adjacent to Helena City limits, on its north side. The boundaries include Custer Avenue to the south, Green Meadow Drive to the east and Racetrack Meadows Subdivision to the north and west.

The Woodlawn Park Addition is bounded by the Fairgrounds to the west, Silsbee Avenue to the north, Green Meadow Drive to the east, and Custer Avenue to the south. The Fairgrounds and Woodlawn occupy the majority of the S ½ Section 13 T10N R4W and the AGC Facility is located in the SW ¼ SW ¼ Section 14 T10N R4W.

The Fairgrounds sewer expansion will provide service to the *Campground area*, *Rodeo Grounds*, and the *West Extension* area that will pickup the AGC Facility (via the *Horseshoe Bend Road*). The 2004 PER used data from the Fairgrounds Master Plan to establish 15,000 visitors per day as a future design benchmark. Estimated increased water and sewer demand would be dependent upon what kinds and frequency of uses developed as the proposed additions/changes are completed.

The new Woodlawn Park sewer system will be installed within the streets and alleyways of the subdivision and will outfall to the Fairgrounds main sewer line with final outfall at the Fort Harrison Lift Station. This area includes 12 businesses, 40 residences and 5 undeveloped parcels. Sewer (Phase I) and water (Phase II) connection to the City would allow for further development of additional parcels. It is estimated an additional 18 parcels would be served by central water and wastewater facilities.

The use of the AGC Facility is dependent upon demand for laborers within the workforce, as well as the programs offered at the facility. Demand should remain relatively constant, barring any drastic long-term changes within the construction industry. The AGC has plans for their facility to include a barn type building to enable an expansion in their curriculum. The expansion would increase the number of individuals served by the facility and the duration of their stay.

The expansion of the existing Fairgrounds sewer system, and the construction of the new sewer collection system within the AGC Facility and Woodlawn areas are expected to start in the spring of 2006, with completion expected by the fall of 2006.

B. FLOW PROJECTIONS

Lewis and Clark County Fairgrounds

City of Helena monthly water records indicate an average water usage of 4,170 gpd. Summer months would be the peak use period and average daily use is as follows:

| | |
|---|---|
| June | 4,850 gpd |
| July | 6,500 gpd |
| August | 5,950 gpd |

It is likely these numbers do not include irrigation, since most of the Fairgrounds property is irrigated from the Woolston Well. The 2004 PER followed criteria presented in Circular DEQ 1 and DEQ 2, Design Standards for Water Works, to estimate future water and wastewater flows of 45,000 gpd (15,000 visitors at 3 gpd).

The sewage lift station on the east side of the Fairgrounds was constructed in the late 1970's. The effluent from the lift station is pumped to the intersection of Green Meadow Drive and Custer Avenue into the Custer Avenue outfall. This section of the outfall is presently above 90% capacity. To the north, the Fort Harrison outfall is currently at 46% of capacity and the fort Harrison lift station is at 38% of capacity.

Woodlawn Park Addition

The 2004 PER followed criteria presented in Circular DEQ 2, Design Standards for Water Works, to estimate the average daily wastewater flow from Woodlawn Park at 15,100 gpd. Design flows for this area have been calculated at 21,000 gpd.

Many of the on-site wastewater systems were installed prior to the county permitting requirements; therefore some are out of compliance with current standards. Another difficulty that has been encountered is the ability to find a replacement area for the disposal system when the existing system fails. In addition, the landowners are unable to put new facilities in many of the parcels because of "on-site" lot size restrictions and the elevation of the groundwater.

AGC Facility

The 2004 PER estimates the wastewater flow for the AGC Facility at 915 gpd. The design flow is also 915 gpd as little growth is expected within this area. In the recent past, one of the two wastewater systems failed and replacement has not been possible because of groundwater elevations. Therefore, that portion of the system has been abandoned.

## C. NATURAL FEATURES

Geology and Topography

The Fairgrounds are located near the confluence of Sevenmile Creek and Tenmile Creek in the southwestern portion of the Helena Valley. The area is surrounded on the north, west, and south sides by bedrock outcrops, and opens to the valley on the east. The Helena Basin is a northeast-tending structure filled with alluvial and fluvial deposits and surrounded by bedrock. The younger deposits have a direct impact on the hydrology in the project area.

Limestone, located south of Mount Helena, likely provides a significant pathway for groundwater movement and recharge to the Helena Valley. Little relief is present within the study area, with much of the area having been built on fill material.

Soils

Much of the soil within the study area has been disturbed or imported. This is especially true within the Fairgrounds where wetlands were filled beginning in the 1870's. The 1995 Natural Resource and Conservation Service soil survey indicates that Meadowcreek-Fairway soil complex covers the majority of the study area. These soils are composed of silt and sandy loams in the first 3-4 feet and gravel afterwards. Suitability for drainfields is very poor due to wetness and poor filtration.

The east half of the Woodlawn Park Addition is mapped as the Musselshell-Crago Complex. The soil texture is gravelly, containing a loamy mixture of sand and clay. Drainfield suitability is moderate due to slow percolation.

Groundwater

Shallow groundwater underlies the Fairgrounds area. Water levels are less than 10 feet below ground surface (bgs) in the project area. The presence of springs indicates groundwater discharge zones and shallow groundwater. Recharge to the groundwater is primarily from the mountains to the south and west. In general, the shallow groundwater flow direction in the study area is toward the east-northeast with a groundwater gradient of approximately 0.008 feet/foot. Hydraulic conductivity was estimated to be approximately

200 ft/day in the deeper water-yielding zones and 5.3 ft/day in the shallow water-yielding zones. Groundwater flow generally follows the surface topography. The presence of springs in the project area indicates discharge zones and near surface flows. In general, the alluvial aquifer system is unconfined closer to the surface and semi-confined at depth. Unconfined conditions likely dominate the hydrogeology in the project area.

A system of tile drains underlies the Fairgrounds directing water below and away from the Fairgrounds. The impact from these tile drains potentially changes the base flow to Tenmile Creek. The tiles also alter the water-holding capacity of surface areas, as well as runoff rate. More efficient runoff developed by drainage systems can result in a decrease in recharge to groundwater. This tile drain system is partly responsible for changing the hydrology of the project area.

Groundwater studies have emphasized the importance of irrigation as a source of recharge in the Helena Valley. In the vicinity of Fort Harrison, a large irrigator reportedly uses approximately seven million gallons per day over a five-month season. Assuming an irrigation efficiency of 50% recharge to the groundwater system from excess irrigation water from this one irrigator would be approximately 2,400 gallons per minute.

One point of source area for contamination to the shallow groundwater system is the Montana Department of Transportation (MDT) maintenance facility, located immediately south and adjacent to the Fairgrounds property. Total petroleum hydrocarbon (TPH) contamination has been reported in groundwater samples collected from monitoring wells at the facility and surrounding wells.

Surface Water and Floodplain

Tenmile Creek is the principal drainage in the vicinity of the Fairgrounds project area. Two springs are known to surface in the project area. The Bald Butte Fault Zone extends along the southern Helena Valley margin and passes just south of the Fairgrounds. The trace of the fault passes near the point where both Crystal Spring and Home of Peace Cemetery Spring surface, potentially contributing to an upward vertical groundwater flow component in the area.

Crystal Springs surfaces west of the Fairgrounds in the vicinity of the railroad tracks. Spring water flows eastward under the Fairgrounds (likely into the tile drain system), resurfacing to the east. Numerous water rights are filed on Crystal Spring and listed in the DNRC database. A second spring located adjacent to the Home of Peace Cemetery, just south of the Fairgrounds and Custer Avenue, discharges to the surface and contributes water to the Custer Avenue wetlands.

For purposes of this study, flooding is not an issue. The entire project lies outside the 100-year floodplain. The 500-year floodplain affects the northwest corner of the study area with parts of Horseshoe Bend and the campground affected (FEMA 1985).

Vegetation

The study area contains a variety of vegetation. The Fairgrounds and residential areas contain predominately Kentucky bluegrass. Open pasturelands contain smooth brome, slender wheatgrass, timothy, Kentucky bluegrass, as well as others. Willows and Russian olive are the dominant shrub/tree and area present especially around wetter areas. Wetland herbaceous vegetation includes Kentucky bluegrass, sedges and rushes. Wetter areas contain cattails and reed canary grass.

Wetlands

Within the study area, wetland areas have been significantly reduced through filling. Wetland filling began in 1870 with the construction of the horserace track. The construction of the two railroad lines in the late 1800's resulted in realignment of surface and subsurface watercourses in the project area. In addition, development throughout the southwestern portion of the Helena Valley adjacent to stream channels and wetland corridors has also contributed to changes in the wetlands regime.

Two inventories have been carried out in the study area. The U.S. Fish and Wildlife Service as part of the National Wetland Inventory (NWI) completed the first; the Wetlands Community Partnership (1998-2001) as part of a survey that covered the Helena Valley completed the second. The NWI data indicate wetland areas as follows:

- Shrub types – adjacent to the AGC Facility and in the southwest corner of the Fairgrounds,
- Open water pond – east of the Fairground entrance, and
- Emergent marsh/wet meadow/slough – east of the racetrack and associated with the outflow from the drainage tiles and open water pond.

The results of the Community Partnership indicate a substantially greater area of wetlands than does the NWI. Outside of the east half of the Woodlawn Park Addition, the results of the Wetland Community Partnership indicate that the entire area is presently a wetland or was prior to filling and draining.

Both surveys rely on only one of the indicators – hydrology, vegetation, or soils. The U.S. Army Corps of Engineers, the agency that oversees wetland impacts and permits, requires that all three indicators be present before an area is classified as a wetland.

## V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

### A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Housing and Commercial Development – There are 5 undeveloped lots within the Woodlawn Park addition that could potentially be developed. Other portions of the Woodlawn Park may also see some minimal expansion of the existing commercial areas with the proposed addition of sewer and water systems. Use at the Fairgrounds is expected to grow and will be supported by the proposed expansion of sewer and water service. No additional housing or commercial development is expected within the project area.

2. Land Use – Housing, farming and industrial activities have occurred within the area for the last 150 years. The impact development has had on environmental resources is significant, but has not been quantified. Present land use would not be changed by the development of or expansion of public wastewater systems in the project area. No adverse impacts to land use are expected from the proposed project.

3. Floodplains and Wetlands – Both the 100- and the 150-year floodplains would not be impacted temporarily or permanently by the proposed alternatives.

Connection to the City of Helena sewer system would result in fewer septic systems generating nitrates. This would be expected to increase water quality within the wetlands. Temporary impact to the wetlands may occur during the installation of sewer mains but no long-term impact is expected.

4. Cultural Resources – A letter dated April 6, 2004 from the Montana Historical Society indicated that a cultural resource inventory would not be required, as the work will take place in previously disturbed ground. The letter indicated that an inventory would be required if cultural materials were inadvertently discovered during the project. As a precautionary measure, a cultural survey would be recommended prior to proceeding with construction.

5. Fish and Wildlife – The U.S. Fish and Wildlife Service, in a letter dated June 9, 2004, stated that "given the scope, location and nature of the proposed project, we do not anticipate any project related adverse impacts to listed species or any critical habitat."

6. Water Quality – A public sewer system would eliminate the use of septic systems in the project area. This should decrease the concentration of nitrates and other nutrients in the surface and groundwater. Downgradient well users, presently experiencing elevated nitrate levels, would benefit. Nitrate levels produced by livestock at the Fairgrounds would continue to be a problem. Any construction in or through a wetland area will need the proper permits, which will dictate the restoration efforts. Short-term impacts on water quality can be controlled through proper construction practices.

7. Air Quality - Short-term negative impacts on the air quality will occur from heavy equipment, dust and exhaust fumes during project construction. Proper construction practices and dust abatement measures will be implemented during construction to control dust, thus minimizing this problem.

8. Public Health – The proposed project is not expected to have adverse impacts on public health, and should instead enhance public health by providing a safe water supply and a reliable wastewater collection and disposal system that does not contaminate surface water or groundwater.

9. Energy - During construction of the proposed project, additional energy will be consumed, causing a direct short-term impact on this resource.

10. Noise - Short-term impacts from increased noise levels may occur during construction of the proposed project improvements. Construction activities are anticipated to last three to five months and will occur only during daylight hours.

B. UNAVOIDABLE ADVERSE IMPACTS

Because the project area has high groundwater areas and wetland areas there is added concern for potential impacts. It will probably be necessary to dewater some locations as the trenches are being dug for the wastewater mains. The proper handing of this water may cause temporary impacts to the surrounding environment.

Many of the sewer lines will be constructed within the street right-of-way; therefore street surface restoration will be required. Also, access to and from homes and businesses during construction will take special consideration. Short-term construction related impacts, such as noise, dust and traffic disruption, will occur but should be minimized through proper construction management. Energy consumption during construction cannot be avoided.

## VI. PUBLIC PARTICIPATION

Three public meetings were held to inform and get feedback from the area residents and other interested persons. The first meeting was held February 4, 2003 at the Fairgrounds. This meeting was primarily an informational meeting to inform the public about the study and what potential outcomes might be. Notable feedback from the meeting included support for the projects. Attendees where particularly supportive of the opportunity for the projects to expand services and activities at the Fairgrounds and to alleviate public health concerns for water users. There was some resistance to annexation into the City of Helena for Woodlawn Park Addition.

The second public meeting was held August 20, 2003. A newsletter was developed to inform potential attendees of the meeting and progress being made toward completion of the PER. This second meeting presented interested persons with the selected alternatives and preliminary cost analysis for the water and wastewater improvements. City of Helena and Lewis and Clark County personnel attended the meeting to answer questions related to the study and talk about their plans for the area. The meeting was well attended by residents of the Woodlawn Park Addition. Questions were primarily related to future annexation into the City.

Cost of the project and funding strategies were also discussed. The residents were urged by City and County personnel to organize themselves as a community in order to make decisions and be successful at applying for funding for their water and wastewater infrastructure improvements.

The Fort Harrison Outfall wastewater alternative will require some acquisition of right-of-way. There are two property owners that could potentially be affected. One of those property owners has raised concern about that alternative because he is against further commercial and residential development between his property and the Woodlawn Park Addition boundary. Currently, that area is in zoning that requires 20-acre parcels. He is concerned that extending sewer services along the Fairgrounds property and connecting to the Fort Harrison Outfall will encourage other property owners to annex into the City of Helena in order to change the zoning requirements for their property. He has cited change to the agricultural land use and disturbance to wetlands in the area as his reason for protest. A meeting of the Technical Committee held August 28, 2003 confirmed that residents in that area already have the potential to annex into the City and hook into City services via the Fort Harrison Outfall and that this new line may only slightly ease the cost burden on doing so.

The Third Public Meeting was held March 30, 2004. The purpose of this meeting was to present a final funding strategy, particularly for the wastewater project. County and City officials attended the meeting to explain the RID process and answer questions that still remained regarding the project as a whole. General consensus at this meeting was that most residents of the Woodlawn area are in favor of creating an RID to generate funds to pay for the water and wastewater improvements recommended in this study. A director from the AGC board also gave his approval of the project. A petition was available for residents of Woodlawn to sign that confirmed their interest in going forward with the formation of a Rural Improvement District (RID) for the Woodlawn Park Addition. The petition was used by the County Commission as

evidence of interest to create and RID and they passed a Resolution of Intent to create the RID August 18, 2005.

## VII. AGENCY ACTION, APPLICABLE REGULATIONS, AND PERMITTING AUTHORITIES

All sewer mains will be designed to meet Montana DEQ requirements. Proper State regulatory review and approval of the project plans and specifications will be obtained. All applicable State permits will be acquired including, but not limited to, a stormwater discharge permit and a construction-dewatering permit.

Due to the presence of live streams and wetland areas within the study area, permits under the Clean Water Act (Section 404) may need to be acquired through the U.S. Army Corps of Engineers. Also, a SPA 124 Permit may need to be obtained from the MFWP in compliance with the Stream Protection Act.

City of Helena sewer lines will be installed for all recommended alternatives. A formal agreement will be written between the City and the owner to provide for City services. Within that agreement, operational requirements will be defined. All operation and maintenance activities will be performed by City personnel. The capacity of Helena's wastewater collection and treatment system is sufficient to handle the current and future flows of the Lewis & Clark Fairgrounds/Dunbar Area.

## VIII. RECOMMENDATION FOR FURTURE ENVIRONMENTAL ANALYSIS

[ ] EIS [ ] More Detailed EA [ X ] No Further Analysis

Rationale for Recommendation: Through this EA, The Montana DEQ has verified that none of the adverse impacts of the Lewis and Clark Fairgrounds/Dunbar Area Wastewater Improvements Project are significant. Therefore, an environmental impact statement is not required. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607 thru 17.4.610.

## IX. REFERENCE DOCUMENTS

The following documents were utilized in the environmental review of this project and are considered to be part of the project file:

A. Lewis and Clark Fairgrounds/Dunbar Area Infrastructure Study, PER, April 2004, prepared by Stahly Engineering and Associates, Helena, Montana.
B. Uniform Application Form For Montana Public Facility Projects, July 2005, loan application submitted to the State Revolving Fund Program by the Lewis & Clark County Commission, Helena, Montana.

## X. AGENCIES CONSULTED

The following agencies were contacted regarding the proposed construction of this project:

A. The Montana Department of Fish, Wildlife and Parks was asked in a May 11, 2004, letter by the project consultant for comments on the proposed project. A follow-up email was

sent in June 2004 and the consultant spoke with an agency representative who had no issues regarding the project.

B. The U.S. Fish and Wildlife Service reviewed the project and a comment letter was received in June 2004. The letter states, "The Service reviewed the proposed project and determined that threatened bald eagles may be present as spring or fall migrants within or near the action area. Given the scope, location and mature of the proposed project, we do not anticipate any project related adverse impacts to listed species or any critical habitat. This concludes consultation and no further review under section 7 of the Endangered Species Act is necessary."

C. The U.S. Army Corps of Engineers reviewed the project and a comment letter was received in June 2004. The letter said the Corps of Engineers is responsible for administering Section 404 of the Clean Water Act, which regulates the excavation or placement of dredged or fill material below the ordinary high water mark of the nation's rivers, streams, lakes or in wetlands. From the limited information provided, the Corps of Engineers could not determine whether a Section 404 permit would be required.

D. The Montana Historical Society's Historic Preservation Office reviewed the project a comment letter was received in April 2004. The letter states, "We feel that because the lines will be placed in previously disturbed ground there is low likelihood cultural properties will be impacted. We, therefore, feel that a recommendation for a cultural resource inventory is unwarranted at this time. However, should cultural materials be inadvertently discovered during this project we would ask that our office be contacted and the site investigated."

E. The Montana Department of Natural Resource and Conservation reviewed the proposed project and indicated that they had not comments. The forwarded the request for comment to the DNRC Floodplain and Trust Lands Division.

F. . The Montana Department of Natural Resource and Conservation's Floodplain Section reviewed the proposed project and responded in a July, 2004 letter. The letter states, "the proposed project will not have an adverse impact on any designated 100-year floodplain. In conclusion, this project would be in compliance with the Flood Disaster Protection Act of 1973, the NFIP and EO11988."

G. The Montana Department of Environmental Quality Public Water Supply Section reviewed the proposed project and indicated that the Department would require review and approval of the extension of City services. Websites were provided detailing the requirements of project approval.

EA Prepared By:

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| Robert Ashton | Date |

EA Reviewed By:

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| Paul LaVigne, P.E. | Date |

EA Approved By:

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| Todd Teegarden, P.E. | Date |